Project #	200407	**Project Title**:	Hwy. Ops. Center Storage Building
Department:	Public Works--Buildings	**Sponsor:**	DPW
Phase:	Construction	**Manager:**	Richard A. Bolte, Dir.
Budget Action:	As Planned	**Date:**	9/21/07 3:01 PM

CAPITAL BUDGET SUMMARY

Year Project Phase	2006	2007	2008	Total Project
Expenditure Budget	$0	$42,000	$410,000	$452,000
Revenue Budget	$0	$0	$0	$0
Net County Cost	$0	$42,000	$410,000	$452,000

COST DOCUMENTATION		**REVENUE**	
Design	$42,000		$0
Construction	$280,000		
Contingency	$20,000		
Demolition	$110,000		
Total Project Cost	$452,000	Total Revenue	$0
EXPENDITURE BUDGET	$452,000	**REVENUE BUDGET**	$0

Project Scope & Description

The work involves constructing an 8400 sq. ft. storage building for general storage for Highway Operations, Fleet Maintenance and Sheriff. The project will contain a concrete floor and also a security chain link exterior fence located tangent to the building. Upon completion, the existing garage at Northview will be demolished and site restored.

Location

To be located at the Highway Operations Center located at 1641 Woodburn Road, Waukesha, WI.

Analysis of Need

Currently, Highway Ops and Fleet Maintenance has numerous pieces of equipment that must be parked outside or at distant locations during the winter. Heated storage provided by this building would secure this equipment in a safe and efficient manner. Numerous material piles and accessories presently stored outside could be kept weather protected and stored inside, while presenting a more organized and clutter free grounds. The Sheriff's department also has need for indoor storage. This storage would replace space lost due to the construction of the new Justice Center. It could also be used by Special Operations and free up garage space currently used at the Northview site.

Alternatives

1. Continue to crowd equipment and accessories into our substations, which is inefficient and unsafe.
2. Continue to store materials outside inducing more inefficiency and deterioration.
3. Continue to store equipment at distant cold storage locations inducing inefficiency, deterioration and security risks.
4. Continue to keep the Northview garage in service and make improvements as needed.

Ongoing Operating Costs

Increase in fuel consumption during the winter months to provide a basic level of heating (50-55 deg. F). Minor increase in electrical consumption for lighting, etc. Anticipate minimal on-going building maintenance costs.

Previous Action

Approved as new project in 2004-2008 plan. Approved with a change in scope and cost update in the 2006-20010 plan. Approved as planned in 2007-2011 plan.

Project #	200416	**Project Title**:	Courthouse Boiler Replacement
Department:	Public Works--Buildings	**Sponsor:**	Public Works-Building Operations
Phase:	Construction	**Manager:**	Richard A. Bolte, Dir.
Budget Action:	As Planned	**Date:**	9/21/07 3:02 PM

CAPITAL BUDGET SUMMARY

Year	2007	2008	Total
Project Phase	Design	Construction	Project
Expenditure Budget	$30,000	$648,000	$678,000
Revenue Budget	$0	$0	$0
Net County Cost	$30,000	$648,000	$678,000

COST DOCUMENTATION		**REVENUE**	
Engineering	$30,000		
Construction	$600,000		
Contingency	$48,000		
Total Project Cost	$678,000	Total Revenue	$0
EXPENDITURE BUDGET	$678,000	**REVENUE BUDGET**	$0

Project Scope & Description
Provide total replacement of two (2) boilers and associated pumping system, piping in the Courthouse power plant.

Location
Courthouse Boiler room CG-53

Analysis of Need
The Courthouse boilers are 1967 vintage. The life expectancy of this type of boiler is 40 years. They are currently operational but the Morrison tubes and header plates have stressed so much during their lifespan that they have been cracking annually which requires a certified welder to rebuild. This has happened during the last 5 years, resulting in boiler failure during the peak heating times. The 2003 repair resulted from corrosion from the inside of the back header plate. The plate was so thin; it had to be built-up by welding passes to restore the steel.

Alternatives
Continue to operate as is, anticipating possible failures during the heating season. Provide repairs as needed to operate.

Ongoing Operating Costs
There could be increased cost to our service contract anticipating possible failure. Replacement of the boilers may result in decreased operating cost due to possible savings in utilities with more efficient boilers based on design and equipment selection.

Previous Action
Annual repairs have been made to the tube sheet for the past 5 years. Emergency repairs to the boilers have been made two of the past five years. Approved as new project in 2004-2008 plan. Approved as planned in subsequent five-year plans.

Project #	200610	**Project Title**:	Substation Salt Mitigation
Department:	Public Works--Buildings	**Sponsor:**	DPW-Highway
Phase:	Design/Construct	**Manager:**	Richard A. Bolte, Dir.
Budget Action:	C-$ Update	**Date:**	September 7, 2007

CAPITAL BUDGET SUMMARY

Year	2006	2007	2008	Total
Project Phase	Design/Con	Design/Con	Design/Con	Project
Expenditure Budget	$64,000	$272,000	$271,000	$607,000
Revenue Budget	$0	$0	$0	$0
Net County Cost	$64,000	$272,000	$271,000	$607,000

COST DOCUMENTATION		**REVENUE**	
Architect	$45,000		
Construction	$511,000		
Contingency	$51,000		
Total Project Cost	$607,000	Total Revenue	$0
EXPENDITURE BUDGET	$607,000	**REVENUE BUDGET**	$0

Project Scope & Description

In light of salt-contaminated groundwater issues identified at the North Prairie Substation and upgrade work to be completed in 2005, Waukesha County plans to address repairs and upgrades to salt-contaminated storm water/wash water runoff collection systems at the other substations. By taking a proactive stance and addressing these issues, possible future groundwater contamination problems at these sites may be prevented. The plan includes installing new underground holding tanks for interior floor drain and truck washing wastewater, replacing underground storm water brine collection tanks and installing high-level alarms, and grading and resurfacing the concrete aprons in front of the salt domes. This work will assure that the substations remain in compliance with Wisconsin Administrative Code TR 277 Highway Salt Storage Requirements.

North Prairie Substation (2006) $20,000
- Install New Salt Dome Brine Tank Hi-Level Alarm

Nashotah Substation (2007) $161,400
- Separate Garage Floor Drains from Septic/Install New Brine Tank
- Replace Existing Salt Dome Brine Tank
- Remove and Replace the Salt Dome and Sand Mix Building Asphalt Apron

New Berlin Substation (2007) $107,600
- Replace Garage Septic Holding Tank
- Install New Salt Dome Brine Tank Hi-Level Alarm
- Install an Apron Berm

Highway Operations Center (2008) $89,000
- Install New Salt Dome Brine Tank Hi-Level Alarm
- Remove and Replace the Salt Dome and Sand Mix Building Asphalt Apron

Sussex Substation (2008) $133,000
- Replace Existing Salt Dome Brine Tank
- Remove and Replace the Salt Dome and Sand Mix Building Asphalt Apron

Project #	200610	**Project Title**:	Substation Salt Mitigation
Department:	Public Works--Buildings	**Sponsor:**	DPW-Highway
Phase:	Design/Construct	**Manager:**	Richard A. Bolte, Dir.
Budget Action:	C-$ Update	**Date:**	September 7, 2007

Location

New Berlin Substation
Sussex Substation
Nashotah Substation
Highway Operations Center
North Prairie Substation

Analysis of Need

The paved aprons outside the salt domes and sand mix buildings are generally in poor to moderate condition. There is typically substantial cracking present and settlement has sometimes occurred which results in storm water ponding. These conditions result in salt-containing storm water infiltrating to groundwater rather than being directed to the brine tanks. In addition, the pavement grading is sometimes insufficiently sloped to direct storm water to the brine tank inlets.

The brine tanks do not have hi-level alarms to notify the facility operators when the tanks have reached the holding capacity. The likely result is significant loss of brine tank water through the brine tank inlet connections.

The maintenance garage floor drains at the North Prairie and Nashotah substations are directed to on-site septic systems. The salt-containing truck wash water enters the subsurface at these locations through the septic system infiltration beds.

The septic system holding tank at the New Berlin substation has failed, apparently due to corrosion from the salt-containing maintenance garage floor drain wash water.

Alternatives

An alternative would be to continue to operate the existing salt-contaminated storm water / wash water runoff collection systems until ordered by the State Department of Transportation (Wisconsin Administrative Code TR 277) or Department of Natural Resources (NR 140) to make repairs and/or restore the environment. The County could be compelled to supply potable water to neighbors on private wells if groundwater contamination were found in the future. Adverse publicity might reinforce the opinion of community leaders that the County is a poor risk as a neighbor, especially if there is a perception that the upgrades were made at North Prairie only in response to evidence of contamination from the monitoring wells required by the Village.

Ongoing Operating Costs

On-going operating costs associated with this project are estimated to be $4,000 per year for pumping and disposal of floor drain and truck wash wastewater collected in new underground holding tanks at two locations.

Previous Action

Added a holding tank at North Prairie substation. Approved as a new project in the 2006-2010 plan. Approved with a cost update in the 2007-2011 plan.

Project #	200617	**Project Title**:	Radio Service Building Remodeling
Department:	Public Works--Buildings	**Sponsor:**	Dept of Emergency Preparedness
Phase:	Formation	**Manager:**	Richard H. Tuma, Dir.
Budget Action:	C $ Update	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year	2008	2009	2010	Total
Project Phase	Budget & Concept	Design	Construction	Project
Expenditure Budget	$10,000	$36,000	$474,000	$520,000
Revenue Budget	$10,000	$36,000	$474,000	$520,000
Net County Cost	$0	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Cost summary		Radio Service Fund Balance	$520,000
Design	$46,000		
Construction	$378,000		
Mis. Planning	$21,000		
Contingency	$30,000		
Generator	$43,000		
Moving Allowance	$2,000		
Total Project Cost	$520,000	Total Revenue	$520,000
EXPENDITURE BUDGET	$520,000	**REVENUE BUDGET**	$520,000

Project Scope & Description

Add approximately 1,000 square feet of "hardened" transmitter/equipment room along with associated AC power and HVAC equipment to accommodate a Digital trunked system infrastructure replacement and future equipment. This addition must be located adjacent to the existing transmitter tower to minimize cable runs and preserve signal strength. The existing light commercial building is relatively vulnerable to weather damage and forcible entry; the project will upgrade the existing building sheet metal exterior.

Location

Radio Services Center 2120 Davidson Road

Analysis of Need

The existing facility is 20 years old and will not be able to accommodate a trunked system infrastructure upgrade or replacement of the system infrastructure and future equipment space needs. This building expansion is expected to extend the facilities useable life for another 20 years and meet future needs. Moreover, the facility is a light commercial building with sheet metal exterior, and is relatively vulnerable to weather damage and forcible entry. Hardening the exterior of the building and securing the investment value of the equipment within the transmitter room and the administrative offices and shop areas are a key aspect of this project.

Alternatives

Due to the tower location, and FAA/FCC/zoning restrictions, there are no "reasonable" alternatives to relocation of county wide trunked system infrastructure.

Ongoing Operating Costs

Because the existing facility is relatively energy inefficient, there may be cost savings due to heating and cooling reductions. The facility budgeted $30,000 for electricity and $3,300 for natural gas in 2007.

Previous Action

Approved as new project in 2006-2010 plan. Approved as planned in the 2007-2011 plan.

Project #	200616	**Project Title**:	Medical Examiner Expansion
Department:	Public Works--Buildings	**Sponsor:**	Medical Examiner
Phase:	Design	**Manager:**	Richard A. Bolte, Dir.
Budget Action:	C-Scope; $ Update	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY				
Year	2007	2008	2009	Total
Project Phase	Budget & Concept	Design	Construction	Project
Expenditure Budget	$8,000	$34,000	$1,054,000	$1,096,000
Revenue Budget	$0	$0	$0	$0
Net County Cost	$8,000	$34,000	$1,054,000	$1,096,000

COST DOCUMENTATION		REVENUE	
Design	$42,000		
Construction	$822,000		
Contingency	$63,000		
Equipment	$169,000		
Total Project Cost	$1,096,000	Total Revenue	$0
EXPENDITURE BUDGET	$0	**REVENUE BUDGET**	$0

Project Scope & Description

Concurrent with the increase in Waukesha County's population and related death rate, the Medical Examiner morgue/office space has reached the limits of its capabilities. The most pressing needs are:

(1) The expansion of refrigerated cooler space is required to accommodate 30 additional bodies. The present cooler space accommodates 8 bodies. The cooler expansion will be tangent to the existing cooler and occupy the existing garage.

(2) The expansion of the autopsy area is required to accommodate autopsy needs of the space. The autopsy space needs to triple in size to meet the present needs. Three additional autopsy stations are required as well as equipment to support the stations .

(3) The expansion of the ventilated tissue preparation area is required to support the storage of additional body tissues.

(4) The relocation of the present bailiff roll call area and locker room (presently located on the first floor directly above the present Medical Examiners office) is required for the expansion of the Medical Examiner office/work area. A remodeled roll call area will be located immediately east of the Justice Center first floor lobby area in the former jail medical offices and a new bailiff locker room will be constructed in the basement of the new Jail.

(5) A new 2 vehicle garage will be constructed to replace the existing garage.

Location

The location of the project would be at the Waukesha County Medical Examiner's Office, located in the Waukesha County Justice Center, 515 West Moreland Boulevard, Waukesha, Wisconsin 53188.

Analysis of Need

Between 1992 and 2004, the number of bodies transported to the Waukesha County Medical Examiner's Office for examination increased from 156 to 355. Facilities must be secure to maintain legal chain of custody. The influx of bodies to the Medical Examiner's Office does not occur at a regular rate. Multiple fatalities, occurring as the result of a single instance, or in a short period of time stresses the facility's space.

Current secure refrigerated units include a cooler with storage space for 8 bodies on movable autopsy tables, and a freezer with storage space for 4 frozen bodies on movable autopsy tables. The cooler is also equipped for storage of tissue samples, toxicology specimens, and items of evidentiary value that require refrigeration for approximately 200 cases. At present materials from approximately 300 cases is maintained in the cooler. Space designated for the storage of 2 bodies is now utilized to store the additional specimens. These items need to be maintained for a minimum of one year. Cooler occupancy has ranged from 0 – 10 bodies, which is above available space. The freezer is equipped to store tissue, toxicology specimens, and items of evidentiary value for approximately 1,200 cases. Space designated for the storage of 2 bodies is utilized to store the additional specimens. The freezer houses tissue, toxicology specimens, and items of evidentiary value for approximately 1,500 cases, which need to be maintained for a minimum of 5 years.

Two full-time forensic pathologists perform autopsies and external examinations (estimated annual number of 450) during normal business hours Monday – Saturday to accommodate the needs of law enforcement. The need exists for facilities in which simultaneous examinations can be performed, for which current space does not allow. The Medical Examiner's Office is outgrowing the space allocated for the tasks of tissue and specimen preparation that are associated with each examination.

Due to the paucity of similar facilities in the area, there is also a demand for the facility. Currently, Waukesha County generates revenue from morgue usage fees paid by coroner & medical examiner offices in other counties and organ donation agencies. This has involved up to 145 occasions and is expected to increase along with related revenues.

Alternatives

1. Do nothing. This alternative does not address the identified space deficiencies.
2. Off-site body and tissue storage. This alternative does not allow needed security for maintaining legal chain of custody.
3. Expand morgue facilities of the Waukesha County Medical Examiner's Office as described above.

Ongoing Operating Costs

Costs to be determined based on the scope of the project.

Previous Action

Approved as new project in 2006-2010 plan. Approved as planned in the 2007-2011 plan.

Project #	200623	**Project Title**:	Courthouse AHU Replacement
Department:	DPW Facilities	**Sponsor:**	Public Works-Building Operations
Phase:	Construction	**Manager:**	Richard A. Bolte, Dir.
Budget Action:	$ Update	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year	2006	2008	2009	2010	2011	Total
Project Phase	Design	Design & Const	Construction	Construction	Construction	Project
Expenditure Budget	$55,000	$545,000	$200,000	$300,000	$200,000	$1,300,000
Revenue Budget	$0	$0	$0	$0	$0	$0
Net County Cost	$55,000	$545,000	$200,000	$300,000	$200,000	$1,300,000

COST DOCUMENTATION		**REVENUE**	
Architect	$100,000		
Construction	$1,100,000		
Contingency	$100,000		
Project Costs	$1,300,000		
Total Project Cost	$1,300,000	Total Revenue	$0
EXPENDITURE BUDGET	$1,300,000	**REVENUE BUDGET**	$0

Project Scope & Description

The scope of the project is the design/engineering and replacement of Air Handling Units and distribution systems in the Courthouse. Design to be completed in phases beginning with design in 2007 with the construction and installation to be completed in 2008, 2009, 2010 and 2011. Scope changes include adding modifications to the distribution systems that include removing the existing plenum ceiling grid, installing new supply ductwork, ceilings and lighting. Some offices will have to be relocated during this work and temporary office swing space will need to be constructed in the basement of the Administration building. The initial phase of the work to be completed in 2008 will include the design and installation AHU # 4, #5 & #10 in previously renovated areas and the completion of the swing space. In 2009, 2010 & 2011 courthouse occupants will need to be temporarily moved to the new swing space so the HVAC distribution systems can be replaced in their respective offices.

At this time there are a number of unknowns associated with the project costs due to the staging and complexity of the work. There will also be costs associated with the telecommunications requirements associated with the swing space. Upon completion of the design in late 2007 the entire scope of the work and a proposed construction schedule will have been identified. Updated budget numbers will also be available for 2009, 2010 & 2011 expenditures.

Location

Waukesha County Courthouse 515 W. Moreland Blvd. Waukesha, WI 53188

Analysis of Need

The number one complaint in the 2003, 2004, 2005 & 2006 Customer Satisfaction Surveys from the staff in the courthouse has been temperature control. There are 23 Air Handling Units in the courthouse. This project is to replace air-handling units and update distribution systems in order to adequately supply and control air-flow to county offices. Most of these units were installed in 1959. The normal life expectancy of mechanical equipment is approximately 25 years. These units are 46 years old and have exceeded their life expectancy and are not reliable from the standpoint of operations, maintenance and energy efficiency. Due to their age and condition these units experience frequent breakdowns and are no longer capable of maintaining temperatures in the comfort zone.

The other critical issue here is how the air is distributed to the offices. Most HVAC systems have supply ducts that allow engineers to determine exactly where and how much air-flow is needed to meet building codes and ensure occupant comfort. The Waukesha County courthouse uses a plenum ceiling to distribute the air-flow. In a plenum air supply air is introduced above the ceiling and is distributed to the room below by finding the path of least resistance

Project #	200623	**Project Title**:	Courthouse AHU Replacement
Department:	DPW Facilities	**Sponsor:**	Public Works-Building Operations
Phase:	Construction	**Manager:**	Richard A. Bolte, Dir.
Budget Action:	$ Update	**Date:**	September 21, 2007

through the ceiling tiles. What usually happens is that the occupants near the air-supply get lots of air but the occupants on the opposite side of the room get very little.

The comfort zone is the range of temperature that the vast majority of people (not all) consider comfortable. Studies have shown that to maintain reasonable employee productivity levels temperatures should be maintained between 68 & 73 degrees with relative humidity levels between 45% & 55%.

There have been a number of renovation projects completed in the courthouse. The common thread in all of them has been that whenever one of these projects have been completed, the existing AHU units did not supply the CFM capacity required to meet building codes. During the second floor renovation of the Clerk of Courts offices two small AHU's # 22 & 23 were added to the project to supplement AHU's # 5 & 22 to meet the CFM requirements. The balancing reports for AHU # 3, #9 & #20 indicate that they are short on capacity.
All areas have potential for asbestos removal. We will need to test and remove asbestos as we prepare for each unit.

Air Handling Units to be replaced.
AHU #1 Installed 1990, supplies ground floor east wing, east side of hallway, has a plenum ceiling supply, cannot control air distribution & flow. Install unit a ducted supply, ceiling & lights.
AHU #2 Installed 1959, supplies first floor east wing, west side of hallway, has a plenum ceiling supply, cannot control air distribution & flow. Install unit a ducted supply, ceiling & lights.
AHU #3 Installed 1959, supplies ground floor east wing west side of hallway, unit is undersized for the area and the ductwork is inadequate. Need to replace the unit and rework some of the ductwork.
AHU #4 Installed 1959, supplies first floor west wing south side of hallway. Unit is old and inefficient.
AHU #5 Installed 1959, supplies second floor east wing. Unit is old inefficient and undersized for the area.
AHU #7 Installed 1990, supplies ground floor east wing, west side of hallway, has a plenum ceiling supply, cannot control air distribution & flow. Install unit a ducted supply, ceiling & lights.
AHU #8 Installed 1959, supplies ground floor west wing, north side of hallway, has a plenum ceiling supply, cannot control air distribution & flow. Unit is old inefficient and undersized for the area. Need to install a ducted supply, ceiling & lights.
AHU #9 Installed 1959, supplies ground floor east wing west side of hallway, unit is undersized for the area and the ductwork is inadequate. Need to replace the unit and rework some of the ductwork.
AHU #10 Installed 1980, supplies first floor west wing north side of hallway. Unit is old and inefficient.
AHU #18 Installed 1959, supplies first floor way west wing, has a plenum ceiling supply, cannot control air distribution & flow. Install unit a ducted supply, ceiling & lights.
The following units need to be replaced but we will hold off until a decision is made on any potential renovation or construction on the third floor.
AHU# 14 Installed 1959, supplies third floor east wing. Area has a plenum ceiling supply, cannot control air distribution & flow. Install a new AHU, ducted supply, ceiling & lights.
AHU# 15 Installed 1959, supplies third floor near lobby. Area has a plenum ceiling supply, cannot control air distribution & flow. Install a new AHU, ducted supply, ceiling & lights.
AHU# 20 Installed 1959, supplies third floor west wing. Area has a plenum ceiling supply, cannot control air distribution & flow. Install a new AHU, ducted supply, ceiling & lights.
AHU #21 Old jail. Very bad shape.

Alternatives
Continue to experience equipment breakdowns that have negative impacts on the productivity of our staff and the services provided in the courthouse.

Ongoing Operating Costs
There will be some positive effect on operating costs because of higher efficiencies gained with new equipment. The existing motors are in the 70% to 80% range. The new high efficiency motors are 90%, so we should realize at least a 10% increase in electrical efficiency. There are also advances in coil technology that reduces the pressure drop across the coil, which in turn reduces the break horsepower requirements of the motor further reducing the electrical consumption. We will also see an increase in efficiency with new/clean thermal transfer surfaces.
From a labor standpoint the old equipment is quite labor intensive. Our mechanics spend too much time trouble shooting and adjusting this old equipment.

Previous Action
AHU #19 was replaced in 2005 and AHU #16 & #17 were replaced in 2007. Approved as a new project in the 2006-2010 plan. Delayed in the 2007-2011 plan with a change in scope and dollar update.

Project #	200805	**Project Title**:	Energy Conservation
Department:	DPW - Facilities	**Sponsor:**	Mark P. Keckeisen
Phase:	1-Yr project	**Manager:**	Richard A. Bolte, Dir.
Budget Action:	New	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year	2008	2008	Total
Project Phase	Design	Construction	Project
Expenditure Budget	$50,000	$550,000	$600,000
Revenue Budget	$50,000	$550,000	$600,000
Net County Cost	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Architect	$50,000	General Fund Balance	$600,000
Construction	$500,000		
Contingency	$50,000		
Total Project Cost	$600,000	Total Revenue	$600,000
EXPENDITURE BUDGET	$600,000	**REVENUE BUDGET**	$600,000

Project Scope & Description

This project includes a number of energy/resource conservation equipment upgrades throughout Waukesha County buildings.

During the First Quarter 2007 we issued a Request For Proposal (RFP), for energy performance contracting services. Our recommendation is that instead of contracting with one or more of the energy performance contractors that we create a Capital Project to accomplish the projects that have an acceptable return on investment (ROI). The work that will be included in the Energy Conservation Project will have ROI's of 10 years or less and may include some or all of the following:

- Lighting fixture upgrades at various buildings,
- Updating exit lighting in all buildings with LED exit lights,
- Plumbing fixture upgrades at various buildings,
- Replacement of manual lighting switches with occupancy sensors, all buildings where appropriate,
- Replacement of manual flush valves on plumbing fixtures, all buildings where appropriate,
- Replacement of hand operated faucets with motion detector controls, all buildings where appropriate,
- Boiler burner upgrades at the LEC and AC,
- VFD's on the chilled water pumps in the AC,
- Building envelope improvements,
- Other energy/resource conservation work identified by the consultants.

Location

Administration Center
Courthouse
Highway Operations & Substations; Nashtoah, New Berlin, North Prairie & Sussex
Juvenile Center
Law Enforcement Center
Public Health

Project #	200805	**Project Title**:	Energy Conservation
Department:	DPW - Facilities	**Sponsor:**	Mark P. Keckeisen
Phase:	1-Yr project	**Manager:**	Richard A. Bolte, Dir.
Budget Action:	New	**Date:**	September 21, 2007

Analysis of Need

With improvements in technology and equipment design and the increased cost of energy and water it is in Waukesha Counties best interests to evaluate opportunities to save energy and reduce the use of resources.

We have identified over $800,000 of energy and resource savings projects that have the potential to save the county over $1.3 million over the next ten years. Our recommendation is to contract with an engineering firm to evaluate our facilities and the proposed projects and select $500,000 worth of projects that have the greatest ROI and then complete them in 2008. When preparing for the 2009 budget we will have more accurate information on other projects and will recommend modifying this project at that time if justifiable.

The following projects are Examples of projects, ROI and savings based upon recent ESCO RFP responses or other project budget estimates. Actual projects and savings will change based upon evaluation and selection. It is anticipated that actual ROI's will be shorter and savings greater than proposed by the ESCO's.

Project Examples	**ROI**	**Est. Cost**	**10 Yr Savings**	**Net Savings**
AC Lighting	7.1	$ 23,485	$ 33,000	$ 9,515
CH Lighting	9.2	$ 74,154	$ 80,330	$ 6,176
HY High Bay Lighting	2.3	$ 59,233	$260,180	$200,947
JV Lighting	6.7	$ 33,308	$ 49,790	$ 16,482
LEC Lighting	7.9	$212,010	$268,230	$ 56,220
PH Lighting	4.7	$ 35,229	$ 75,690	$ 40,461
Update exit lighting with LED's		$ 10,000		
Install occupancy sensors.		$ 5,000		
AC Boiler Burner & Controls	5.8	$ 16,284	$ 28,280	$ 11,996
LEC Boiler Burner & Controls	5.8	$ 16,284	$ 28,280	$ 11,996
AC VFD on CWP	4.4	$ 12,137	$ 27,460	$ 15,323
Building Envelope	8.1	$175,712	$215,840	$ 40,128
CH Water	5.8	$ 49,489	$ 84,940	$ 35,451
HY NP Water	0.7	$ 1,984	$ 19,840	$ 18,341
HY SU Water	0.6	$ 1,207	$ 19,840	$ 18,633
JV Water	6.8	$ 13,547	$ 19,840	$ 6,293
LEC Water	6.4	$ 64,054	$100,190	$ 36,136
PH Water	2.0	$ 4,049	$ 19,840	$ 15,791
Install automatic flush valves		$ 15,000		
Install automatic faucets		$ 15,000		
Totals		$ 837166	$1,331,570	$ 539,885

Alternatives

Not taking advantage of energy and resource conservation opportunities and continuing to spend unnecessary county operations funds on energy and resources.

Ongoing Operating Costs

These projects should realize a reduction in energy and water consumption of $100,000 per year in 2006 dollars. The Department of Public Works will reduce budget for utilities in 2009 and 2010 at least $50,000 as determined by actual rate and reduced consumption.

Previous Action

New project

Project #	200806	**Project Title**:	Law Enforcement Center HVAC
Department:	Facilities	**Sponsor:**	Mark P. Keckeisen
Phase:	Design	**Manager:**	Richard A. Bolte, Dir.
Budget Action:	New	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year	2008	2009	Total
Project Phase	Design	Construction	Project
Expenditure Budget	$50,000	$440,000	$490,000
Revenue Budget	$50,000	$440,000	$490,000
Net County Cost	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Architect	$50,000	General Fund Balance	$490,000
Construction	$400,000		
Contingency	$40,000		
Total Project Cost	$490,000	Total Revenue	$490,000
EXPENDITURE BUDGET	$490,000	**REVENUE BUDGET**	$490,000

Project Scope & Description

Evaluate the existing HVAC systems in the Law Enforcement Center. Design and install an energy efficient system that will meet the current and future needs of the LEC. The preliminary estimate of $440,000 identified for construction and contingency will be solidified as the evaluation of the existing systems and subsequent design of the new systems progresses. Our intent is to schedule project design early in 2008 so the 2009 construction costs can be adjusted accordingly.

Location

Law Enforcement Center

Analysis of Need

There are six water cooled AHU's in the Law Enforcement Center. The units provide air conditioning to the LEC building. There are a number of problems associated with the existing HVAC systems in the LEC. 1) For years the occupants have been working in an environment where the mechanical and distribution systems have not been able to keep the occupied areas of the building in the comfort zone. 2) Various Sheriff department offices have continued to add computers and other support equipment to support the departments goals. This additional heat load creates more problems as we struggle to maintain acceptable space temperatures. 3) Condensing the refrigerant requires the use of domestic water, which can become costly, both economically and environmentally.

The amount of water required to operate the facility is 105.75 gallons per square foot. The average for all other county facilities combined is 31.91 per square foot. When the LEC was being designed a decision was made to utilize domestic water for the condenser cooling application instead of utilizing air cooled as is normally done with standard roof top units or a cooling tower as is used for larger air conditioning systems. As energy costs continue to increase at a rate of nearly 10% annually, the cost of cooling the facility with domestic water is becoming less viable from an economic and environmental standpoint. Conservative annual savings in sewer and water costs are anticipated to be in the range of $40,000 per year. Additional savings in electricity consumption are also anticipated. Specific budget estimates and potential savings will be identified as the project particulars and equipment selection progresses.

Alternatives

Continue operations as they are now.

Ongoing Operating Costs

$40,000+ annual water and sewer costs.

Previous Action

New Project

Project #	HWY-9903	**Project Title**:	CTH Y, I-43 – CTH I
Department:	Public Works- Highway	**Road Name:**	Racine Avenue
Phase:	Construction	**Project Type:**	Priority Corridor
Budget Action:	As Planned	**Manager:**	Richard A. Bolte, Dir.
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year	2004	2005	2006	2007	2008	2009	Total
Project Phase	Design	Land Acq.	Land Acq.	Land	Const.	Const.	Project
Expenditure Budget	$595,000	$700,000	$2,100,000	$5,750,000	$2,000,000	$2,000,000	$13,145,000
Revenue Budget	$0	$0	$0	$0	$0	$500,000	$500,000
Net County Cost	$595,000	$700,000	$2,100,000	$5,750,000	$2,000,000	$1,500,000	$12,645,000

COST DOCUMENTATION		**REVENUE**	
Design	$595,000	CHIP - D	$500,000
Land Acquisition	$3,250,000		
Construction	$8,300,000		
Construction Management	$660,000		
Contingency	$340,000		
Total Project Cost	$13,145,000	Total Revenue	$500,000
EXPENDITURE BUDGET	$13,145,000	**REVENUE BUDGET**	$500,000

Project Scope & Description

This project involves the reconstruction of 1.1 to 1.2 miles of CTH Y to a multi-lane section with raised medians and designated left turn lanes from I-43 to nearly CTH I (project will terminate to its natural vertical match at Mill Creek Trail). The roadway alignment will stay at its present location. Land will be acquired to a distance of 60 feet from the roadway centerline north of CTH ES and 55 feet from the roadway centerline South of CTH ES. There may be up to 10 potential business and residential relocations. This project will incorporate a grade separation at CTH Y and CTH ES. A connecting roadway (with signals) will be constructed in the northeast quadrant. Construction scheduling coordination with WisDOT and City of New Berlin will be conducted to minimize traffic impacts due to projects proposed by the different agencies. Cost increase reflects the significant increases of current industry prices.

Location

City of New Berlin

Analysis of Need

CTH Y or Racine Avenue has been identified as a priority need for widening to 4 lanes by the Waukesha County Department of Public Works. This portion of CTH Y is also shown as a 4-lane roadway in the SEWRPC Jurisdictional Highway Plan for the year 2020 for Waukesha County. Traffic volumes recorded in 2006 along this portion of CTH Y are approximately 16,900 vehicles per day. The volumes indicate that the existing two-lane roadway is beyond its operating capacity of 13,000 vehicles per day, and is therefore in need of widening.

Alternatives

1. Do nothing. This alternative does not address the identified deficiencies.
2. Reconstruct CTH Y as described above.

Ongoing Operating Costs

Operating costs are expected to increase by approximately $25,000 per annum for the additional lane miles and traffic signal.

Previous Action

Approved as new project in 1999-2003 Capital Plan.
Approved as planned in the 2000-2004, 2002-2006, Capital Plans.
Approved with cost update in the 2001-2005, 2004-2008, 2005-2009, and 2006-2010 Plans.
Approved with change in scope in 2003-2007, 2007-2011 and Plans.

Project #	HWY-9904	**Project Title**:	CTH X, STH 59 – Harris Highlands
Department:	Public Works- Highway	**Road Name:**	St. Paul Avenue
Phase:	Construction	**Project Type:**	Priority Corridor
Budget Action	As Planned	**Manager:**	Richard A. Bolte, Dir.
Date:	09/21/2007, 3:05 PM		

CAPITAL BUDGET SUMMARY

Year	2005	2006	2007	2008	Total
Project Phase	Design	Des/Land	Land	Construction	Project
Expenditure Budget	$479,000	$519,000	$910,000	$2,500,000	$4,408,000
Revenue Budget	$0	$0	$0	$0	$0
Net County Cost	$479,000	$519,000	$910,000	$2,500,000	$4,408,000

COST DOCUMENTATION		**REVENUE**	
Design	$770,000	STP - M	$10,912,000
Land Acquisition	$910,000		
Construction	$12,340,000		
Construction Management	$800,000		
Contingency	$500,000		
Total Project Cost	$15,320,000	Total Revenue	$10,912,000
EXPENDITURE BUDGET	$4,408,000	**REVENUE BUDGET**	$10,912,000

Project Scope & Description

This 2.0 mile long project involves the reconstruction of CTH X to a multi-lane section. The roadway will have two driving lanes in each direction. The use of either a median or a two way left turn lane to provide for left turn movements will be evaluated during the design phase of the project. The project may involve two residential relocations. The roadway alignment may be moved slightly to reduce impacts on adjacent properties. Additional lands will be purchased to a distance of 65 feet from the roadway centerline. Intersections along CTH X will be improved to meet current and future traffic demands. The bridge over Pebble creek will be replaced, and the structure over Wisconsin Southern Railroad will be widened. Approximately $10,900,000 in Federal Aid will be required. Cost increase reflects the significant increases of current industry prices.

Location

Town of Waukesha/ City of Waukesha

Analysis of Need

CTH X or St. Paul Avenue has been identified as a priority need for widening to 4 lanes by the Waukesha County Department of Public Works. This portion of CTH X is also shown as a 4-lane roadway in the SEWRPC Jurisdictional Highway Plan for the year 2010 for Waukesha County. Traffic volumes recorded in 2006 along this portion of CTH X were approximately 20,700 vehicles per day south of Sunset Drive and 18,900 vehicles per day north of MacArthur Road. These volumes indicate that the existing two-lane roadway is beyond its operating capacity, which is 13,000 vehicles per day, and is therefore in need of widening.

Alternatives

1. Do nothing. This alternative does not address the identified deficiencies.
2. Reconstruct CTH X as described above.

Ongoing Operating Costs

Operating costs are expected to increase by approximately $25,000 per annum for the additional lane miles.

Previous Action

Approved as new project in 1999-2003 Capital Plan. Approved as planned in the 2000-2004 and 2006 - 2010 Capital Plans. Approved with cost update in the 2001-2005 Plan. Approved as planned in the 2002-2006 Plan. Delayed 2 years in 2003-2007 Plan. Approved as planned in the 2004-2008 Plan. Approved with cost updates in 2005-2009 Plan. Approved as planned in the 2006-2010 plan. Approved with cost update in the 2007-2011 plan.

Project #	HWY-9707	**Project Title**:	CTH VV, Marcy - Bette Drive
Department:	Public Works- Highways	**Road Name:**	Silver Spring Dr
Phase:	Land Aquisition	**Project Type:**	Priority Corridor
Budget Action:	As Planned	**Manager:**	Richard A. Bolte, Dir.
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year	2007	2008	2009	Total
Project Phase	Design	Land Acquis.	Construction	Project
Expenditure Budget	$150,000	$340,000	$1,590,000	$2,080,000
Revenue Budget	$0	$0	$0	$0
Net County Cost	$150,000	$340,000	$1,590,000	$2,080,000

COST DOCUMENTATION		**REVENUE**	
Design (By DPW staff)	$150,000	STP - M	$6,320,000
Land Acquisition	$340,000		
Construction	$7,200,000		
Construction Management	$485,000		
Contingency	$225,000		
Total Project Cost	$8,400,000	Total Revenue	$6,320,000
EXPENDITURE BUDGET	$2,080,000	**REVENUE BUDGET**	$6,320,000

Project Scope & Description

This project involves the reconstruction of 1.5 miles of CTH VV to a multi-lane section. The use of a median or a two way left turn lane to provide for left turn movements will be evaluated during the design phase of this project. The roadway alignment will stay at its present location. Land will be acquired to a distance of 60 feet from the roadway centerline; additional grading easements and vision corners may be required. Most of the ultimate right of way was purchased under a previous project. Approximately $6,320,000 in Federal Aid will be required.

Location

Village of Menomonee Falls

Analysis of Need

CTH VV or Silver Spring Dr. has been identified as a priority corridor for widening to 4 lanes by the Waukesha County Department of Public Works. This portion of CTH VV is also shown as a 4-lane roadway in the SEWRPC Jurisdictional Highway Plan for the year 2010 for Waukesha County. Traffic volumes recorded in 2006 along this portion of CTH VV are approximately 15,600 vehicles per day. These volumes indicate that the existing two-lane roadway is beyond its operating capacity, which is 13,000 vehicles per day, and is therefore in need of widening.

Alternatives

1. Do nothing. This alternate does not address the identified deficiencies.
2. Reconstruct CTH VV as described above.

Ongoing Operating Costs

Operating costs are expected to increase by approximately $15,500 per annum for the additional lane miles.

Previous Action

Included in 1993-1997 Plan and deleted in 1994-1998 Plan. Approved as a new project in 1997-2001 Capital Plan. Approved as planned in 1998-2002 to 2000-2004 Plans. Approved with cost update, and delayed in 2001-2005 and 2002-2006 Plans. Approved as planned in 2003-2007, 2004-2008 Plans. Approved with scope and cost update in 2005-2009, 2007-2011 plans. Approved with cost and revenue update 2006 - 2010 plan. Approved with cost update in the 2007-2011 plan.

Project #	HWY-200011	**Project Title**:	CTH L, CTH Y to Moorland Road
Department:	Public Works- Highways	**Road Name:**	Janesville Road
Phase:	Land Acquisition	**Project Type:**	Priority Corridor
Budget Action:	As Planned	**Manager:**	Richard A. Bolte, Dir.
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year	2007	2008	2009	2010	2011	2012	2013	Total
Project Phase	Design	Land	Land	Land	Const	Const	Const	Project
Expenditure Budget	$1,000,000	$3,500,000	$3,850,000	$3,600,000	$4,350,000	$4,500,000	$4,750,000	$25,550,000
Revenue Budget	$0	$0	$0	$0	$0	$0	$0	$0
Net County Cost	$1,000,000	$3,500,000	$3,850,000	$3,600,000	$4,350,000	$4,500,000	$4,750,000	$25,550,000

COST DOCUMENTATION			
Design	$1,000,000	Agreement with City of Muskego	$2,000,000
Land Acquisition	$11,600,000	for requested additional items to be determined	
Construction	$13,550,000		
Construction Mgmnt.	$900,000		
Contingency	$500,000		
Total Project Cost	$27,550,000	Total Revenue	$2,000,000
EXPENDITURE BUDGET	$25,550,000	**REVENUE BUDGET**	$0

Project Scope & Description

This project involves the reconstruction of 2.5 miles of CTH L from Moorland Road to CTH Y from a two-lane to a four-lane roadway. The project will be designed as one project with the potential for multiple construction contracts. The scheduling and limits of these contracts will be resolved and coordinated with the City of Muskego as the project develops. The use of a median or a two way left turn lane to provide for left turn movements will be evaluated during the design phase of this project. The roadway alignment will stay at its present general location. Land will be acquired to a distance of 60 feet from the roadway centerline; additional easements may be required. This project may include up to 16 potential business and residential relocations. Waukesha County will incorporate items requested by Muskego through the Context Sensitive Solution process. The City of Muskego will reimburse the County for additional expenses incurred with a project agreement.

Location

City of Muskego

Analysis of Need

CTH L or Janesville Road has been identified as a priority need for widening to 4 lanes by the Waukesha County Department of Public Works. This portion of CTH L is also shown as a 4-lane roadway in the SEWRPC Jurisdictional Highway Plan for the year 2010 for Waukesha County. Traffic volumes recorded in 2003 along this portion of CTH L are approximately 16,000 vehicles per day. These volumes indicate that the existing two-lane roadway is beyond its operating capacity of 13,000 vehicles per day, and is therefore in need of widening.

Alternatives

1. Do nothing. This alternate does not address the identified deficiencies.
2. Reconstruct CTH L as described above.

Ongoing Operating Costs

Operating costs are expected to increase by approximately $13,500 per annum for the additional lane miles.

Previous Action

Approved as a new project in the 2001-2005 Capital Plan. Delayed in 2003-2007 Plan.
Approved as planned in the 2002-2006 Capital Plan.
Approved with cost update in 2004-2008, 2005-2009, 2007-2011Plans.
Approved as two projects in the 2006-2010 Plan.
Approved as a combined project (200011 & 200603) with a cost update in the 2007-2011 plan.

Project #	HWY-200008	**Project Title**:	CTH E, Oconomowoc River Bridge & App
Department:	Public Works - Highways	**Road Name:**	
Phase:	Construction	**Project Type:**	Bridge
BudgetAction:	C - $ Update	**Manager:**	Richard A. Bolte, Director
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year	2000	2001	2004	2007	2008	Total
Project Phase	Design	R/W&Const.	Construction	Construction	Const	Project
Expenditure Budget	$82,000	$406,000	$96,000	$149,000	$218,000	$951,000
Revenue Budget	$0	$0	$0	$0	$218,000	$218,000
Net County Cost	$82,000	$406,000	$96,000	$149,000	$0	$733,000

COST DOCUMENTATION		**REVENUE**	
Design	$170,000	North Lake	$250,000
Land Acquisition	$21,000	Management District	
Construction	$655,000	Portion of Design and Construction	
Construction Management	$79,000		
Contingency	$26,000		
Total Project Cost	$951,000	Total Revenue	$250,000
EXPENDITURE BUDGET	$951,000	**REVENUE BUDGET**	$218,000

Project Scope & Description
The project objective is to eliminate a weight restricted bridge on CTH "E" in the Town of Merton. Various alternatives were considered, including: 1. replacing the bridges on new alignment, 2. replacing the bridges and dam spillway structures on existing alignment, 3. replacing a bridge and removal of the dam, and 4. rerouting CTH "E". The selected alternative is to construct a box culvert on existing roadway alignment and construct a new dam spillway. An existing raceway structure will be removed. Reconstructed portions of roadway will meet current standards for pavement and shoulder width. This project will require land acquisition. The North Lake Mangagement District (NLMD) has agreed to accept dam spillway ownership, operating, and maintenance rights from the current private dam owner. NLMD will fund the reconstruction of the dam spillway and will reimburse Waukesha County for these costs following construction. A project agreement is in place with the NLMD to address items such as cost sharing, dam ownership, long term maintenance, etc.

Location
Town of Merton

Analysis of Need
Two roadway structures at the site include a 15.4-foot span steel deck girder and an 8-foot span stone arch raceway. The CTH E roadway and structures combine to form a dam, retaining Monches Mill Pond. The dam, spillways, and structures are privately owned and maintained. Waukesha County inspects the structures. The deck girder is in poor condition and is posted with a 6-ton load limit. The spillway floor is undermined and a scour hole exists just downstream of the structure. Structure replacement is warranted.

Alternatives
1. Do nothing. This alternative does not address the identified deficiencies.
2. Reconstruct the existing bridge and roadway approaches to current WisDOT standards.

Ongoing Operating Costs
Initial maintenance costs will be reduced.

Previous Action
Approved as a new project in the 2000-2004 Plan. Approved as planned in the 2001-2005 to 2003-2007 Plans. Approved with cost update in the 2004-2008 Plan. Approved as planned in the 2005-2009 and 2006-2010 Plans. Approved with cost update in the 2007-2011 Plan.

Project #	HWY-200420	**Project Title**:	CTH SR, Fox River Bridge & Appr.
Department:	Public Works- Highways	**Road Name:**	Springdale Road
Phase:	Construction	**Project Type:**	Bridge
Budget Action:	$ Update	**Manager:**	Richard A. Bolte, Director
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year	2005	2006	2007	2008	Total
Project Phase	Design	Right of Way	Construction	Construction	Project
Expenditure Budget	$91,000	$100,000	$392,000	$30,000	$613,000
Revenue Budget	$0	$0	$0	$0	$0
Net County Cost	$91,000	$100,000	$392,000	$30,000	$613,000

COST DOCUMENTATION		**REVENUE**	
Design	$145,000	Federal Bridge Aid	$1,392,000
Land Acquisition	$120,000		
Construction	$1,500,000		
Construction Management	$180,000		
Contingency	$60,000		
Total Project Cost	$2,005,000	Total Revenue	$1,392,000
EXPENDITURE BUDGET	$613,000	**REVENUE BUDGET**	$0

Project Scope & Description

This project includes the replacement of structure P-67-732, CTH SR Bridge over the Fox River, and reconstruction of its roadway approaches. The roadway will remain a two-lane facility and will be constructed to current standards. Due to site hydraulic conditions, the proposed bridge is a 4-span land bridge/ stream crossing. The roadway elevation of the bridge will increase up to 5.5 feet, increasing project length to 1350 feet and increasing the bridge from a 2-span to a 4-span structure. The bridge will be constructed with shoulders to accommodate bicycles and pedestrians in accordance with the adopted Regional Bicycle and Pedestrian Facilities System Plan for Southeastern Wisconsin: 2010. A slab type structure will be constructed that can be widened if needed in the future. Right of way will be purchased to a width of 50 feet from the roadway centerline. The project will receive an estimated $1,392,000 in Federal Bridge Aid.

Location

City of Brookfield, City of Pewaukee

Analysis of Need

The existing bridge is two-span deck-girder bridge constructed in 1962. The ends of the pre-cast double tee girders are deteriorating, exposing tensioning strands. The loss of section has caused two girders to settle over the pier. Emergency repairs were made to the bridge in 2002. The structure sufficiency number is 38.4, which indicates that a structure replacement is warranted according to WisDOT guidelines, which state that a bridge should be replaced when the sufficiency drops below 50. The jurisdiction of this bridge transferred from the City of Brookfield to Waukesha County in 2000. The Fox River runs parallel to CTH “SR” for approximately three hundred feet at the site.

Alternatives

1. Do nothing. This alternative does not address the identified deficiencies.
2. Reconstruct the existing bridge and roadway approaches to current WisDOT standards.

Ongoing Operating Costs

Initial maintenance costs will be reduced.

Previous Action

Approved as new project in 2004-2008 Plan. Approved with cost update in 2005-2009 and 2006-2010 Plans. Approved with scope change and cost update in the 2007-2011 Plan.

Project #	HWY-200606	**Project Title**:	CTH P, Bark River Bridge & Appr.
Department:	Public Works - Highways	**Road Name:**	Sawyer Road
Phase:	Land Acquisition	**Project Type:**	Bridge
Budget Action:	C - $ Update	**Manager:**	Richard A. Bolte, Director
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year	2007	2008	2009	Total
Project Phase	Design	Right of Way	Construction	Project
Expenditure Budget	$124,000	$110,000	$96,400	$330,400
Revenue Budget	$0	$0	$0	$0
Net County Cost	$124,000	$110,000	$96,400	$330,400

COST DOCUMENTATION		REVENUE	
Design	$124,000	Federal Bridge Aid	$385,600
Land Acquisition	$110,000		
Construction	$415,000		
Construction Management	$50,000		
Contingency	$17,000		
Total Project Cost	$716,000	Total Revenue	$385,600
EXPENDITURE BUDGET	$330,400	**REVENUE BUDGET**	$0

Project Scope & Description

This project includes the replacement of the existing box culvert with a new culvert or single span bridge and reconstruct the immediate roadway approaches on existing alignment. Replacement of an integral dam spillway is anticipated with this project. The roadway will remain a two-lane facility and will be constructed to current standards. At a minimum, right of way will be acquired to the ultimate width of 40 feet from the roadway centerline. Additional R/W width may be necessary to construct this project. The dam spillway is not maintained by Waukesha County. Waukesha County will seek cost participation from the dam owner for the local share of spillway replacement design and construction costs. The project will receive an estimated $385,600 in Federal Bridge Aid.

Location

Town of Summit

Analysis of Need

The existing bridge is two-cell box culvert that was constructed in 1932. The upstream and downstream ends of the culvert are severely deteriorated. The railing is deteriorating and is substandard design. The structure has no approach guardrail. The roadway over the structure is narrow with minimal shoulders. The structure sufficiency number is 41.9, which indicates that a structure replacement is warranted according to WisDOT guidelines that state that a bridge should be replaced when the sufficiency drops below 50. There is a dam spillway constructed integrally with the box culvert on the upstream side of the culvert. The location of the existing dam spillway will conflict with shoulder widening.

Alternatives

1. Do nothing. This alternative does not address the identified deficiencies.
2. Reconstruct the existing bridge and roadway approaches to current WisDOT standards.

Ongoing Operating Costs

Initial maintenance costs will be reduced.

Previous Action

Approved as a new project in the 2006-2010 Plan. Approved with cost update in the 2007-2011 Plan.

Project #	HWY-200823	**Project Title**:	CTH P, CTH DR Improvements
Department:	Public Works- Highway	**Road Name:**	Sawyer Road, Delafield Road
Phase:	Design	**Project Type:**	Increased Capacity
Budget Action:	New	**Manager:**	Richard A. Bolte, Dir.
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year	2008	2009	2010	2011	2012	Total
Project Phase		Const.				Project
Expenditure Budget	$1,750,000	$0	$0	$0	$0	$1,750,000
Revenue Budget	$1,750,000	$0	$0	$0	$0	$1,750,000
Net County Cost	$0	$0	$0	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Design	$0	Capital Project Fund Balance	$1,750,000
Land Acquisition	$0		
Construction	$1,750,000		
Construction Management	$0		
Contingency	$0		
Total Project Cost	$1,750,000	Total Revenue	$1,750,000
EXPENDITURE BUDGET	$1,750,000	**REVENUE BUDGET**	$1,750,000

Project Scope & Description

This project provides for the construction of infrastructure improvements in coordination with the Pabst Farms Development. These improvements would be part of a multi-jurisdictional plan with WisDOT, Town of Summit, City of Oconomowoc and Waukesha County. Funding provided represents the County's share of the $4.5m local cost share for the I94/CTH P interchange improvement plan. The $4.5 million is the estimated costs of increased capacity improvements on County Trunk Highway P. Additional funding is being provided by the developer and the Oconomowoc TIF district. The County contribution is contingent upon the following :

1. A cooperative agreement between the County, developer, City of Oconomowoc and WisDOT.
2. Construction of the regional shopping mall by a major national developer in the 2008-2010 time frame.
3. A contribution from the developer equal to the County's contribution. If the developer's contribution is less than the $1.75 million, the County's share will be reduced in a like manner.

Should any of these conditions fail to materialize, the County funds will not be released.

Location

City of Oconomowoc, Town of Summit

Analysis of Need

WDOT has advanced the reconstruction of the CTH P/I-94 interchange in response to the magnitude and timing of development proposals in the Pabst Farms. The county highways that approach the interchange also need to be rebuilt to accommodate the additional traffic volumes and the relocated interchange. The regional shopping mall is expected to result in higher equalized value than previous plans on the Pabst development and contribute to the closing of the tax incremental district at least one year earlier than planned.

Alternatives

1. Do nothing. This alternate does not address the identified need.
2. Construct the improvements as part of the infrastructure development plan.

Ongoing Operating Costs

Lane miles will be added on CTH P and result in increased County maintenance costs.

Previous Action:

New project

Project #	HWY-9817	**Project Title**:	Culvert Replacement Program
Department:	Public Works - Highways	**Road Name:**	Various
Phase:	Program Project	**Project Type:**	Bridge
Budget Action:	As Planned	**Manager:**	Richard A. Bolte, Director
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year Project Phase	Previous	2008	2009	2010	2011	2012	Total Project
Expenditure Budget	$1,000,000	$100,000	$100,000	$100,000	$100,000	$100,000	$1,500,000
Revenue Budget	$0	$0	$0	$0	$0	$0	$0
Net County Cost	$1,000,000	$100,000	$100,000	$100,000	$100,000	$100,000	$1,500,000

COST DOCUMENTATION		**REVENUE**	
Previous	$1,000,000		
2008 Appropriation	$100,000		
2009 Appropriation	$100,000		
2010 Appropriation	$100,000		
2011 Appropriation	$100,000		
2012 Appropriation	$100,000		
Total Project Cost	$1,500,000	Total Revenue	$0
EXPENDITURE BUDGET	$1,500,000	**REVENUE BUDGET**	$0

Project Scope & Description
Provide annual funding for a countywide culvert replacement program.

Location
Various

Analysis of Need
The Public Works Department replaces a number of culverts every year because of deterioration. This program is designed to address the larger culvert structures that require more extensive design and land acquisition, and have a higher construction cost. Generally the individual cost of the replacements is approximately $50,000 and therefore they do not warrant a Capital Project, however when grouped together the yearly costs exceed $100,000. Individual culvert locations are not normally known until the year they are to be replaced. We have averaged one to two culvert replacements per year under this program.

Alternatives
Schedule individual projects as the needs arise.

Ongoing Operating Costs
The projects do not require any expenditure of the Department's operating budget. Projects are reviewed by the engineering staff.

Previous Action
Project Approved as program project beginning in 1998-2002 Capital Plan. Approved as planned in the 2001-2005 Plan. Approved with additional years in the 2002-2006 to 2007-2011 Plans.

Project #	HWY-200427	**Project Title**:	Signals & Safety
Department:	Public Works-Highway	**Road Name:**	
Phase:	Program Project	**Project Type:**	Spot Improvement
Budget Action:	As planned	**Manager:**	Richard A. Bolte, Dir.
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year Project Phase	2008	2009	2010	2011	2012	Total Project
Expenditure Budget	$1,050,000	$1,100,000	$1,000,000	$1,000,000	$1,000,000	$5,150,000
Revenue Budget	$0	$0	$0	$0	$0	$0
Net County Cost	$1,050,000	$1,100,000	$1,000,000	$1,000,000	$1,000,000	$5,150,000

COST DOCUMENTATION		**REVENUE**	
			FUNDING
2008 Appropriation	$1,050,000		
2009 Appropriation	$1,100,000		
2010 Appropriation	$1,000,000		
2011 Appropriation	$1,000,000		
2012 Appropriation	$1,000,000		
Total Project Cost	$5,150,000	Total Revenue	$0
EXPENDITURE BUDGET	$5,150,000	**REVENUE BUDGET**	$0

Project Scope & Description

This program will address roadway safety needs in three specific areas: existing signal upgrades, improvements at intersections that meet the most warrants with the installation of new traffic signals, addition of bypass lanes and right-of-way acquisition for roadway improvements at various locations and high crash sites. At each site the Department will study signal and roundabout alternatives and implement the most appropriate solution. The following intersections will be studied and constructed over the next two years (2008/2009):

CTH SR (Springdale Rd) & CTH M (North Ave) (new signal and roadway improvements)	$450,000
CTH Y (Racine Ave) & Kelsey Drive (new signals and roadway improvements)	$560,000
CTH Y (Barker Rd) & CTH M (North Ave)	$1,000,000
Countywide bypass lanes and right-of-way acquisition (locations to be determined)	$140,000

Location: Projects will be place named in the budget year. 2008/2009 projects are located in Cities of Brookfield, Pewaukee, and Muskego. Bypass and right-of-way projects will be located throughout the County Highway System.

Analysis of Need: The County's population continues to increase. This fuels an increase in the number of vehicles on the roadways. As a result, there is an increasing need to install new traffic signals to reduce crash rates, delays and congestion. Some existing signals are more than 20 years old and at least need new features like turn arrows or pedestrian phrases. Some high crash site locations are not at intersections and need to be addressed with other techniques like roadway reconstruction.

Alternatives: Accept increasing numbers of vehicle delays and rising crash rates. Attempt to perform signal upgrades using maintenance funding. Watch the list of warranted signal locations grow longer. Encourage alternative forms of transportation including transit, bicycling and walking.

Ongoing Operating Costs: Approximately $9,600 annually per new signal installation and additional lane miles.

Previous Action: Projects 9816 and 200203 approved in 2002-2006, 2003-2007 Capital Plans. Approved as combined program in 2004-2008, 2005-2009 plans. Approved as planned in 2006-2010 plan. Approved with cost update in 2007-2011 plan.

Project #	HWY-200509	**Project Title**:	Repaving 2007-2012
Department:	Public Works	**Road Name:**	
Phase:	Program Project	**Project Type:**	Repaving
Budget Action:	As Planned	**Manager:**	Richard A. Bolte, Dir.
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year Project Phase	2007	2008	2009	2010	2011	2012
Expenditure Budget	$2,800,000	$2,800,000	$2,850,000	$2,600,000	$2,650,000	$2,700,000
Revenue Budget	$600,000	$0	$0	$0	$0	$0
Net County Cost	$2,200,000	$2,800,000	$2,850,000	$2,600,000	$2,650,000	$2,700,000

COST DOCUMENTATION

	Paver Study	UWW Pav.	Hwy Paving & shouldering
2007	$20,000	$50,000	$2,730,000
2008	$20,000	$50,000	$2,730,000
2009	$20,000	$50,000	$2,780,000
2010	$20,000	$50,000	$2,530,000
2011	$20,000	$50,000	$2,580,000
2012	$20,000	$50,000	$2,630,000
Total Project Cost	$120,000	$300,000	$15,980,000
EXPENDITURE BUDGET			$16,400,000

REVENUE

	CHIP Rev	Transp Aids
2007	$600,000	$0
2008	$0	$0
2009	$0	$0
2010	$0	$0
2011	$0	$0
2012	$0	$0
Tot. Revenue		$0
REVENUE BUDGET		$0

Project Scope & Description

The project involves the resurfacing or rehabilitation of County Trunk Highways to remove distressed areas and provide an improved riding surface. It is the Department's goal to pave approximately 20 miles of roadway on a yearly basis. Crush, relay and surface or other alternative methods will be used as necessary in lieu of a simple patch and overlay. The project includes the cost of the ongoing Paver Inspection Program, which determines the sections of highways to be repaved, the cost of shouldering, and the cost of the paving program at U.W. Waukesha, and the parking lots at the Department's substation facilities. Cost increase reflects the significant increases of current industry prices.

Location Various locations throughout the county.

Analysis of Need

The Department presently maintains about 396 centerline miles of asphalt-surfaced roadways on the County Trunk System and the parking lots at U.W. Waukesha. As the Department has reconstructed existing 2-lane roadways to 4-lane facilities and as these 4-lane facilities are now coming to the end of there design life. As asphalt pavements age the surface tends to rut and crack due to vehicle loads and weathering of the asphalt. The Department has initiated a pavement management program, which uses the PAVER software system. The average pavement condition index (PCI) of asphalt pavements in 2003 was 73. Our goal is to achieve an average PCI rating of 70 with less than 10% under a PCI of 40. Resurfacing projects take into consideration the PCI of the existing pavements and the classification of the road. The PCI ratings will be updated on a rolling three-year schedule.

Alternatives

1. Do nothing. This alternative will result in a deteriorated system requiring large expenditures of funds to reconstruct the deteriorated sections.
2. Spot repairs and patching. The result will be a slight delay in the deterioration of the system, but the eventual result will be the same as "do nothing".
3. Resurface roadways based on pavement conditions determined by the PAVER pavement management system and Department review.

Ongoing Operating Costs

The cost of maintaining a two-lane roadway in good condition is approximately $6,300 per mile.

Previous Action

Approved in the 2005-2009, 2006-2010, 2007-2011 Capital Plans.

Project #	A-200702	**Project Title**:	Taxiways "C", "D", Repair and Lighting
Department:	Airport	**Project Name:**	
Budget Action:	C $ Update	**Manager:**	Keith Markano
Date:	September 21, 2007		

CAPITAL BUDGET SUMMARY

Year	2008	2009	Total
Project Phase	Design	Construction	Project
Expenditure Budget	$110,000	$0	$110,000
Revenue Budget	$110,000	$0	$110,000
Net County Cost	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Construction	$1,900,000	WI BOA 5%	$95,000
Design-County Share	$15,000	FAA 90%	$1,710,000
		Project dependent on available Federal and/or State Funding	
Total Project Cost	$1,915,000	Total Revenue	$1,805,000
EXPENDITURE BUDGET	$110,000	**REVENUE BUDGET** (Airport Fund Balance)	$110,000

Project Scope & Description

Repair the pavement on Taxiways "C" and "D", and put in a lighting system for Taxiways "C" and "D". The project will also involve approximately 300 ft. of Taxiway "F" between taxiways "A" and "D".

Location

Taxiway "C", Taxiway "D" east of Taxiway "C".

Analysis of Need

The most recent Pavement Maintenance Plan published in August, 2002 shows that at that time, Taxiway "C", Taxiway "D" east of Taxiway "C", and a small portion of Taxiway "F" north of Taxiway "D" had a useful remaining life of 3-5 years, which would put the latest date for the end of the usable life to be in August, 2007. This project was originally going to be an alternative in the 18/36 reconstruction project, but due to increased costs associated with fuel, materials, etc. this is no longer possible. Significant cracking and pavement displacement has already taken place along several areas along the east end of "D", pavement crack sinking is occurring all along "C", and cracking has begun to develop on "F". Also, with increased use of Taxiway "C" and "D" over the last 10 years, the need to have a lighting system installed along these taxiways is apparent, as they currently use only reflectors to guide aircraft along the taxiways.

Alternatives

Do nothing: We would continue to use the pavement as is, but there would be an increased safety risk to aircraft using that pavement. Even though daily inspection occur along these specific pavements during the week, pavement can crack or chip off at any time, causing debris to be ingested into aircraft engines, which can cause serious damage. We would also continue to use the reflectors to guide aircraft along the taxiways, but the risk would remain high for aircraft losing their way along the taxiways during low ceiling conditions and nighttime operations.

Ongoing Operating Costs

Operating costs would include the continual upkeep and maintenance of the taxiways when needed, plus the costs of purchasing lighting supplies to keep Taxiways "C" and "D" lighted and operational. Also, depreciation on the projects costs will be involved.

Previous Action

Approved as a new project in the 2007-2011 plan.

Project #	A-200803	**Project Title**:	Southeast Hangar Area Phase III
Department:	Airport	**Manager:**	Keith Markano
Phase:	Design		
Budget Action:	New Project	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year	2008	2009	Total
Project Phase	Design	Construction	Project
Expenditure Budget	$90,000	$0	$90,000
Revenue Budget	$90,000	$0	$90,000
Net County Cost	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Construction	$1,515,000	WI BOA 5%	$76,000
Design	$14,000	FAA 90%	$1,363,000
		Project dependent on available Federal and/or State Funding	
Total Project Cost	$1,529,000	Total Revenue	$1,439,000
EXPENDITURE BUDGET	$90,000	**REVENUE BUDGET** (Airport Fund Balance)	$90,000

Project Scope & Description
Grade hangar area for SE Hangar area phase III, construct taxilanes, utilities, and access road(s).

Location
South of Phase II development, north of Northview Road, West of Pewaukee Road.

Analysis of Need
Multiple-Unit hangar and T-hangar construction has been projected to be needed by the Airport Layout Plan. Phase I of the SE Hangar area was completed in 1996, Phase II will be completed in 2007, and current demand for the phase II lots far exceeds the lots available, thereby creating the need to complete the final phase of this long-term project a little sooner than expected.

Alternatives
Do nothing – this would lead to hangar development at other airports and/or a lack of capacity for available demand.

Ongoing Operating Costs
The only operating costs will be snow removal and maintenance costs. It is anticipated that some of the snow removal expense for the area will be offset by a reduction in grass cutting expenses. Depreciation costs and the balance of the snow removal and future maintenance costs will be made up through land lease fees.

Previous Action
New project.

Project #	PP-200824	**Project Title**:	Pavement Management Plan
Department:	Parks & Land Use	**Manager:**	Dale Shaver, Parks & Land Use Director
Phase:	Program Project		
Budget Action:	As Planned	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year Program Project	2008	2009	2010	2011	2012	Total Project
Expenditure Budget	$400,000	$400,000	$400,000	$400,000	$400,000	$2,000,000
Revenue Budget	$0	$0	$0	$0	$0	$0
Net County Cost	$400,000	$400,000	$400,000	$400,000	$400,000	$2,000,000

COST DOCUMENTATION		**REVENUE**	
2008	$400,000		
2009	$400,000		
2010	$400,000		
2011	$400,000		
2012	$400,000		
Total Project Cost	$2,000,000	Total Revenue	$0
EXPENDITURE BUDGET '07	$400,000	**REVENUE BUDGET**	$0

Project Scope & Description

In cooperation with the Public Works Department, retain consultant services to update the Pavement Management Plan for county and park highways, roads and to address the condition and maintenance schedule of parking lots, curb and gutter, and sidewalks at county facilities. The projects consist of soil borings, pavement pulverization, stabilization fabric, culverts, stone base and asphalt pavement construction.

Location

Various locations determined by pavement conditions.

Analysis of Need

In 2007 the Parks Department retained the engineering services to evaluate the current paving system. The Parks Department change from the PASER rating system to the PAVER system in an effort to be consistent with the Public Works Department. The work included field surveys of pavement conditions, development of deterioration models, preparation of a 15-year pavement management plan, and five annual elements. The pavement is rated on a scale of 1-100, pavement repairs will be based on need with 70 and above excellent needing no work, 60 good, 50 fair, 40 poor, and 20 and below is rated as failed. Project work for 2008 will be identified when the report is final later in 2007.

Alternatives

Spot repair with asphalt base patching and chip and seal road surface has been performed to maintain some function of the roadway. This could be continued on an annual basis, but will not achieve the desired surface performance. Reconstruction will be required eventually.

Ongoing Operating Costs

Maintenance of the existing road conditions requires frequent patching and chip and seal applications in order to provide usable conditions. Operating costs within the next 5 years will be minimal with the proposed pavement improvements.

Previous Action

Approved as a new program project in the 1997-2001 Capital Plan, continued in 1998-2002 Plan and 1999-2003 Capital Plan. Approved with a change in scope to include additional pavement in the 2000-2004 plan. Approved as planned in the 2001-2005 Plan, 2002-2006 Plan, and 2003-2007 Plan, 2004-2008 plan, and 2005-2009 plan, and 2006-20010 plan, and 2007-2011.

Project #	PP-200701	**Project Title**:	Fox Brook Park Reserved Picnic Shelter 2
Department:	Public Works - Buildings	**Sponsor:**	Parks & Land Use
Phase:	Design	**Manager:**	Dale Shaver – Parks & Land Use Dir.
Budget Action:	As Planned	**Date**	9/21/2007

CAPITAL BUDGET SUMMARY

Year	2008	2009	2011	Total
Project Phase	Planning	Design	Construction	Project
Expenditure Budget	$5,000	$36,000	$612,000	$653,000
Revenue Budget	$0	$0	$0	$0
Net County Cost	$5,000	$36,000	$612,000	$653,000

COST DOCUMENTATION		**REVENUE**	
Planning/Design	$41,000		
Construction - Building	$463,600		
Construction - Site Work	$128,540		
Contingency	$19,860		
Total Project Cost	$653,000	Total Revenue	$0
EXPENDITURE BUDGET	$653,000	**REVENUE BUDGET**	$0

Project Scope & Description

Plans for Fox Brook Park visualized development in phases. Phases I and II have been developed. These phases included the Fox Brook Beach House/Lodge, the Reserved Picnic Shelter, paved walking trail with observation decks around the lake, and the Maintenance Facility. Additional phases plan for an additional reserved picnic shelter and an accessible fishing pier with a boardwalk and paddleboat docks along the shore. This project is for the construction of the second reserved picnic shelter.

Location

Fox Brook Park: 2925 North Barker Rd. Brookfield, WI 53045

Analysis of Need

Fox Brook Park has been a success and there exists a demand to add the additional reserved shelter. The existing reserved shelter is usually rented for the entire weekend picnic summer season by the end of the first week in January. This project would construct a new-reserved shelter with the same amenities as the existing shelter and a 50-car parking lot. The new shelter would be located in the large lawn area between the existing parking lot and Barker Road. This would allow easy access to the existing trail and beach. This area is also popular for the annual holiday train stop and the shelter here would accommodate concession sales and provide restroom facilities. Locating the shelter here would still allow for a 100-car grass overflow parking area for special event parking.

Alternatives

Do not construct a new shelter. However, the shelter would be very rentable and would increase revenue for the park. The construction of the shelter would be in accordance with proposed uses for Fox Brook Park.

Ongoing Operating Costs

Operation Cost based upon a $4.38/sq ft for the maintenance of the building, pavement management, site maintenance, insurance, and waste disposal would increase operation cost by $8,600. Revenue based on rental reservation and park entrance fees is conservatively projected to increase by $12,000.

Previous Action

Approved as new project in the 2007-2011 plan.

Project #	PP-200503	**Project Title**:	Muskego Park Maintenance Building
Department:	Public Works - Buildings	**Sponsor:**	Parks & Land Use
Phase:	Construction	**Manager:**	Dale Shaver – Parks & Land Use Dir.
Budget Action:	C - $ Renew	**Date:**	9/21/2007

CAPITAL BUDGET SUMMARY

Year	2005	2006	2008	Total
Project Phase	Planning	Design	Construction	Project
Expenditure Budget	$5,000	$17,000	$610,000	$632,000
Revenue Budget	$0	$0	$0	$0
Net County Cost	$5,000	$17,000	$610,000	$632,000

COST DOCUMENTATION		**REVENUE**	
Planning/Design	$22,000		
Construction - Building	$463,700		
Construction - Site Work	$122,900		
Contingency	$23,400		
Total Project Cost	$632,000	Total Revenue	$0
EXPENDITURE BUDGET	$632,000	**REVENUE BUDGET**	$0

Project Scope & Description

This project replaces an old metal shed used as the maintenance and park office since the late 1950's. The new facility would be approximately 3350 s.f. in size. This is similar to the size and appearance of the Fox River and Fox Brook Park maintenance buildings. This building would consist of a public park office and support areas, heated shop and storage, cold storage, fuel tanks, and service yard. Cold storage increased by 150 sq. ft. and two overhead doors to be similar in size as Fox Brook Park. Project includes removal of existing building.

Location

Muskego Park, S83 W20370 Janesville Rd., Muskego, WI 53150 – adjacent to the existing park office and maintenance building.

Analysis of Need

Because of the age of the facility, poor energy efficiencies, and functionality, the maintenance building should be replaced. The building is not conducive to meeting with the park user. The main entrance serves as the park foreman's office, public meeting area, lunchroom for employees, minor storage area, and a small bathroom is off this room. The garage storage areas are poorly lit and have low ceilings limiting their usefulness.

Alternatives

Do not construct a new facility and remodel the existing facility to function better for the intended use. An addition would be required to enlarge the office and support areas. It is unlikely changes could be made to improve the garage area because of the metal wall construction. Therefore new construction is the best course of action.

Ongoing Operating Costs

Expected utility costs would be expected to decrease from current costs of $10,000 with a new energy efficient building.

Previous Action

Approved as new project in 2005-2009 plan. Approved as planned in the 2006-2010 plan. Construction funding deleted in the 2007-2011 plan by a County Board amendment.

Project #	PP-200609	**Project Title**:	Retzer Nature Center Maintenance Building
Department:	Public Works - Buildings	**Sponsor:**	Parks & Land Use
Phase:	Design	**Manager:**	Duane Grimm PLU Park System Manager
Budget Action:	$ Update	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year	2007	2008	2010	Total
Project Phase	Planning	Design	Construction	Project
Expenditure Budget	$5,000	$30,000	$707,000	$742,000
Revenue Budget	$0	$0	$0	$0
Net County Cost	$5,000	$30,000	$707,000	$742,000

COST DOCUMENTATION		**REVENUE**	
Planning/Design	$35,000		
Construction - Building	$476,100		
Construction - Site Work	$207,900		
Contingency	$23,000		
Total Project Cost	$742,000	Total Revenue	$0
EXPENDITURE BUDGET	$742,000	**REVENUE BUDGET**	$0

Project Scope & Description

This project combines the maintenance functions and native plant handling facilities for the Retzer Nature Center. Currently these functions are spread out in various newer and old buildings. This new facility would be approximately 3300 sq. ft. in size with two separate 20' x 60' poly greenhouses to accommodate the native plant nursery activities and plant sale area. The maintenance building would consist of a restroom, seed sorting and cleaning area, soil bins, heated shop and storage, cold storage, fuel tanks, and service yard with five-car parking. The cold storage was increased by 150 sq. ft. with two overhead doors to be similar in size to Fox Brook Park. This will be the first maintenance building to include sustainable enhancements in the design. Design costs for 2008 are requested to be updated to $30,000.

Location

Retzer Nature Center, S14 W28167 Madison St., Waukesha, WI 53188. The maintenance facility would be located near the nature center building.

Analysis of Need

The old Sigurdson barn presently holds the majority of maintenance equipment for Retzer Nature Center. The storage space is inadequate requiring other equipment to be stored in an old shed near the barn. Some equipment is stored outdoors. An outside storage trailer is presently leased and located near the main building and is used for additional equipment storage. This trailer is unsightly and just off the parking lot. The barn becomes very damp and water seepage is a problem in spring and heavy rains. The barn lacks ventilation, heat, and lighting. There is no running water and therefore no way to wash equipment. The barn is located a considerable distance from the main building requiring employees to operate maintenance equipment on CTH "DT". This is dangerous to staff and motorists.

Alternatives

Do not construct a new facility and remodel the existing facility to function better for the intended use. An addition would be required to enlarge the office and support areas. The buildings are much too old to consider this alternative.

Ongoing Operating Costs

Expected utility costs would be expected to decrease with a new energy efficient building. Utility costs for park maintenance buildings range in costs from $5,000 to $10,000 a year.

Previous Action Approved as new project in 2006 – 2010 capital plan. Approved with a location change and a cost update in the 2007-2011 plan.

Project #	200109	**Project Title**:	Implement HHS Automated System
Department:	DOA-Information Systems	**Sponsor:**	HHS-Don Maurer
Phase:	Design and Implementation	**Manager:**	Mike Biagioli
Budget Action:	C-Scope; $ Update	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year Project Phase	2001 **Analysis**	2004	2006 **Devlpmnt**	2008 **Devlpmnt**	2009 **Implmnt**	Total Project
Expenditure Budget	$560,000	$725,000	$110,000	$580,000	$830,000	$2,805,000
Revenue Budget	$560,000	$725,000	$110,000	$0	$0	$1,395,000
Net County Cost	$0	$0	$0	$580,000	$830,000	$1,410,000

COST DOCUMENTATION	Phase I	Phase II	Total
Software	$725,000	$350,000	$1,075,000
Vendor Customization	$0	$105,000	$105,000
Hardware	$0	$85,000	$85,000
Contract/Consulting Services	$560,000	$730,000	$1,290,000
Contingency	$110,000	$140,000	$250,000
Total Project Cost	$1,395,000	$1,410,000	$2,805,000
EXPENDITURE BUDGET	$2,805,000		

REVENUE	
State Funding (SACWIS)	$180,000
Capital Project Fund Balance	$60,000
Human Services Fund Balance	$1,155,000
Total Revenue	$1,395,000
REVENUE BUDGET	$1,395,000

Project Scope & Description

Phase I

Prior funding from this Capital Project has funded the implementation of the State WiSACWIS system and its interfaces to the PeopleLink System. Funding was also included to incorporate the implementation of the Avatar PM Module from Netsmart to replace the prior Accounts Payable system (MDX) which was not HIPAA compliant and the vendor has determined that they were not going to invest in the system to bring it into compliance. Funding was also included to replace the current Special Living Fund system with an updated fund management system. This replacement of the Special Living Fund system is still an objective of this project.

Phase II

This Capital Project's scope was changed to reflect a new objective for 2008. Information Technology, working with Human Services has realized that the complexity of interfacing the in house developed PeopleLink system with NetSmart's Avatar PM product has emphasized the problem of maintaining a custom in-house system, and trying to interface that system with purchased packaged solutions. While the ultimate goal is to provide Health and Human Services with an integrated solution that ties all functions together, continuing with the ongoing support of the PeopleLink system will continue to put a high burden on Information Technology staff and other resources. Based on the completed analysis of business operations and where automation would best assist Health and Human Services, this initiative now moves into the implementation of a replacement system (NetSmart's Managed Service Organization or MSO) for the in-house PeopleLink system and all its associated interfaces, followed by the implementation of the NetSmart Case Management system (Clinician Workstation or CWS). The Manager Services Organization Module will have the CareLink component added to accommodate the required external interfaces. The replacement of PeopleLink is anticipated to run for the entire year of 2008, followed by the Implementation of the Clinician Workstation in 2009.

There are anticipated customizations to the software, required by Waukesha County. This is projected to add $110,000 to the cost of the software.

Assistance from NetSmart to implement both modules is anticipated to add $133,000 to the project.

Additional Server capacity will be required for the operation of these two modules.

Significant contract consultant help will be required to assist both Information Technology and Health and Human Services during the implementation of these modules.

Location

Health and Human Services will be the major benefactors of this effort.

Project #	200109	**Project Title**:	Implement HHS Automated System
Department:	DOA-Information Systems	**Sponsor:**	HHS-Don Maurer
Phase:	Design and Implementation	**Manager:**	Mike Biagioli
Budget Action:	C-Scope; $ Update	**Date:**	September 21, 2007

Analysis of Need

1. The required modifications to PeopleLink, to properly interface with WiSACWIS, HRIS, and the Avatar PM module and the Clinician Workstation System, would extend this project well into 2012. Replacing PeopleLink with the Managed Services Organization module will eliminate an in-house application that has consumed staff resources far beyond the original expectations.
2. The business case for implementing a Case Management system for Health and Human Services has been made and is supported by solid Return on Investment as well as solid business justification.
3. The analysis of the NetSmart modules in question has indicated that existing users are satisfied with the system and the vendor has received high marks for support of their customers.
4. Installing vendor support modules instead of in-house developed applications moves the burden of maintenance of the application unto the vendor. This reduces the dependency on a single person in Information Technology.
5. The PeopleLink module is in need of a significant upgrade. Replacing it with a vendor package will defer the funds required for this upgrade.
6. Although a temporary solution for the Special Living Fund issue has been implemented a long-term solution still needs to be analyzed and implemented.

Alternatives

Alternatives to this project include:

1. Continue using the current partially automated process that is in place.
2. Develop the system in-house using a combination of County Information Systems staff and contracted services.

Ongoing Operating Costs

An estimate of on-going operational costs for the maintenance component for the Avatar PM module will be $38,250. The maintenance costs associated with theManaged Service Organization module of $22,000 in 2009 and the Clinician Workstation System are anticipated to be $33,000 starting in 2010. CareLink is anticipated to have a maintenance cost of $44,000 also starting in 2009. Additional maintenance costs for the Intersystem Cache Database are anticipated to be $22,000 starting also in 2009. Additional operational costs associated with maintenance on the hardware upgrades required for this project are $17,000 annual starting in 2009.

Previous Action

Approved as new project in 2001-2005 Plan. Approved with change of scope in 2006-2009 Plan.

Project #	200622	**Project Title**:	Tract Index Replacement
Department:	Register of Deeds/I.T.	**Sponsor:**	Register of Deeds
Phase:	Implementation	**Manager:**	Mike Biagioli
Budget Action:	As Planned	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year	2007	2008	Total
Project Phase	Design/Specifications	Implementation	Project
Expenditure Budget	$50,000	$225,000	$275,000
Revenue Budget	$0	$0	$0
Net County Cost	$50,000	$225,000	$275,000

COST DOCUMENTATION		**REVENUE**	
Design	$50,000		
Contract Services/Equipment	$225,000		
Contingency	$0		
Total Project Cost	$275,000	Total Revenue	$0
EXPENDITURE BUDGET	$275,000	**REVENUE BUDGET**	$0

Project Scope & Description

This project is being initiated in conjunction with the Department of Administration and the County Cashiering capital project. Because documents are received and assigned document numbers in the Cashiering application, it is crucial that the Cashiering application (being pursued separately in the Countywide Cashiering capital project) and the Tract Index application are able to share this data.

The intent of this project is to replace the in-house Oracle based Tract Index with a single-source application from an outside vendor that will incorporate these functions.

The Tract Index is a database that indexes all records associated with real estate that are submitted to the Register of Deeds. Once a record is received by the R.O.D., it is given a document number by our cashiering system then imaged by Records Management. The Tract Index allows users to find individual documents by a variety of parameters.

This project will need to be coordinated with cashiering solution for the department, as these two systems are interdependent.

Funds are set aside in this project to study the current process interactions between Cashiering, imaging, and tract index applications.

Location

Register of Deeds, any department or citizen/organization accessing land-based records, Information Systems.

Analysis of Need

Tract Index: I.T. has requested we replace our current tract index system with a complete package provided by an outside vendor. The current index is an Oracle application which was developed in-house: Because it is unique and only a handful of remaining I.T. staff are familiar with it, it is very expensive, time consuming and labor-intensive to support. The index links to images which are viewed with a third party application (Optika/Acorde). As a result, any upgrade, version changes, etc to Optika/Acorde may cause problems with the index application.

Additionally, dependence on I.T. as our sole support for our tract index generally means one individual IT staff person is solely responsible for support of our system . If this staff member is out of the office when we have a problem, or retires shortly before a major Oracle upgrade (as happened in 2004), we are left without support until a new person can be trained in this one-off application. A recent upgrade to Oracle

Project #	200622	**Project Title**:	Tract Index Replacement
Department:	Register of Deeds/I.T.	**Sponsor:**	Register of Deeds
Phase:	Implementation	**Manager:**	Mike Biagioli
Budget Action:	As Planned	**Date:**	September 21, 2007

Forms 9i was conducted jointly with I.T. and an outside consultant. The outside consultant is not readily available to us for problem solving.

Alternatives

1) Maintaining current process: The Tract Index would continue to be a burden to I.T. in terms of support. Also, if the one I.T. employee who knows our system well is out of the office when we have a problem, Real Estate production could be shut down until he/she is available to fix the problem. This could idle up to 10 R.O.D. employees.

When our current cashiering system goes down, we must revert to manual recording of documents, which requires all documents to pass through one individual in order to maintain document number continuity. In this situation, we would also be making hand-written receipts and keeping calculator tapes to track the day's transaction.

Prior to implementation of the current tract and cashiering system, the Waukesha County R.O.D. office received approximately 55,000 documents per year and was working on a 5 month document turn around. Today, with the same number of staff, we are able to process over 123,000 documents (2004 total) and remain within a 30 day turnaround benchmark. Failure of one or both parts of the current system could seriously erode production levels.

2) Combined system: Use a single software vendor to provide integrated cashiering, indexing, and perhaps imaging. This may alleviate several issues caused by having multiple vendors for separate software packages. Breakdown in the connectivity between applications caused by upgrades in any of the individual systems could also be eliminated. Troubleshooting a single application or a set of integrated modules from one vendor could be simpler and less expensive than maintaining multiple systems from a variety of vendors.

A combined system is not currently being pursued. A separate Capital Project is currently in place to replace all cashiering systems in the county. A combined system will be considered if it is determined a standard cashiering solution will not meet the cashiering requirements of the Register of Deeds office.

Ongoing Operating Costs

Annual maintenance cost is estimated at $25,000-$45,000, based on estimates from vendors and a 15% of initial cost rule-of-thumb estimate.

Previous Action

Approved as planned in the 2007-2011 plan.

Project #	IS-200822	**Project Title**:	Asset & Facilities Management System
Department:	DOA-Information Technology	**Sponsor:**	DPW & PLU
Phase:	Implementation	**Manager:**	Mike Biagioli
Budget Action:	New	**Date:**	September 7, 2007

CAPITAL BUDGET SUMMARY

Year	2008	2009	Project Total
Project Phase	Development & Implementation	Completion	
Expenditure Budget	$210,000	$0	$210,000
Revenue Budget	$0	$0	$0
Net County Cost	**$210,000**	**$0**	**$210,000**

Cost Documentation		**Revenue**	
Software Enterprise License	$75,000		
GIS Module	$25,000		
Facility Condition Assessment	$25,000		
Contract Services	$85,000		
Total Project Cost	**$210,000**	**Revenue Budget**	**$0**

Project Scope & Description

The purpose of this project is to fund the replacement of the County's current software used by Facilities to receive and schedule end user department work order requests and manage space allocation and building assets. The proposed new software would be web-based multi-use asset, building, highway management tracking and work order management system. Parks and Land Use has identified similar business needs to manage their physical assets, buildings, work orders and scheduling of staff assignments. Parks and Land Use and the Department of Public Works require the web-based enterprise version of the software to give them the ability to use the application at any of their facilities and collaborate on staff assignments and projects. There are also several features that will provide the both departments with better planning tools, while giving them the ability to use the software from anywhere in the County. The web-based version would incorporate the GIS module for Parks and Land Use and provide both departments with hands on training from the vendor. This project fits the County's goal of where possible addressing the common business needs of multiple departments in a single shared software solution. The benefits of a single solution include increased efficiencies and reduced costs for hardware, software, internal and external on-going maintenance and support.

Location

Parks and Land Use and the Department of Public Works.

Analysis of Need

1. Parks and Land Use has been looking for an Asset Management software package that was web-based to facilitate their management requirements.

2. Facility Focus has provided the Facilities Division with the centralized facility and asset management software they require. The combination of the two department needs into a single shared package saves server space, software maintenance costs, and support costs..

Alternatives

Alternatives to this project include:

1. Conduct an RFI/RFP to identify an alternative package for Parks and Land Use and other potential departments.
2. Parks and Land Use can remain doing this process manually.

Ongoing Operating Costs

The annual software maintenance costs, beginning in year two are estimated to be $27,000. The dedicated server environment is estimated at $3,500 per year. These costs will be divided between the two departments.

Previous Action

None.

Project #	DOA-200710	**Project Title**:	Collection System Interface(s)
Department:	DOA-Collections	**Sponsor:**	DOA
Phase:	Design	**Manager:**	Sean Sander, Business Services Manager
Budget Action:	As Planned	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year	2007	2008	Total
Project Phase	Analysis/Design/Installation	Completion	Project
Expenditure Budget	$80,000	$20,000	$100,000
Revenue Budget	$80,000	$20,000	$100,000
Net County Cost	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Consulting/Contracting Services	$80,000		
Consulting Contingency	$20,000	Collections Fund Balance Transfer	$100,000
Total Project Cost	$100,000	Total Revenue	$100,000
EXPENDITURE BUDGET	$100,000	**REVENUE BUDGET**	$100,000

Project Scope & Description

This capital project replaces DOA-200327 (Upgrade Collections CUBS System). In 2005 the collection software and the corresponding database it runs on were upgraded to the most current version. The hardware was also replaced with a faster and more powerful server.

Currently internal County Departments manually refer unpaid accounts to Collections. Considerable staff time is spent by both the referring department and collections in processing these referrals. Automation of the referral process for Collection's 2 largest customers - Health & Human Services and Clerk of Courts will result in considerable reduction of staff time in processing referrals, which will allow for timely referral and collection of accounts. Currently it takes Collections and HHS staff a combined 21 hours on average to manually process 24 referrals which result in 67 accounts to collect. This capital project will identify the best alternative for automating the referral process which is likely to require two separate custom interfaces with one electronic interface between DHSS's Avatar billing system and the collection system (Columbia Ultimate Business Systems - CUBS) and another between CCAP and CUBS.

Location
Health & Human Services, Clerk of Courts and Collections will benefit from this effort.

Analysis of Need
The County continues to seek opportunities to automate back office functions and manual processes in an ongoing effort to be more efficient and cost effective. Creation of these interfaces meets this objective. It also is expected to enable increased referrals to Collections with reduced administrative/support required to process those referrals.

Alternatives
Continue to refer accounts to collections manually.

Ongoing Operating Costs
Ongoing support/maintenance cost is expected to be 15% of the cost of the developed interface(s).

Previous Action
Approved as a new project in the 2007-2011 plan.

Project #	IS-200705	**Project Title**:	Voice Mail Replacement
Department:	County-wide	**Sponsor:**	Department of Administration
Phase:	Design	**Manager:**	Mike Biagioli
Budget Action:	As Planned	**Date:**	September 21, 2007

CAPITAL BUDGET SUMMARY

Year	2007	2008	Total
Project Phase	Design/Installation	Completion	Project
Expenditure Budget	$225,000	$25,000	$250,000
Revenue Budget	$225,000	$25,000	$250,000
Net County Cost	$0	$0	$0

COST DOCUMENTATION		**REVENUE**	
Hardware/Software	$200,000		
Installation	$25,000	Communications Fund	
Consulting Service	$25,000	Balance Transfer	$250,000
Total Project Cost	$250,000	Total Revenue	$250,000
EXPENDITURE BUDGET	$250,000	**REVENUE BUDGET**	$250,000

Project Scope & Description

The purpose of this project is to replace the County's voice mail system. For a number of years, the County has been using the OCTEL voice mail system. This system has been upgraded several time to refresh the technology and to accommodate additional users. Now the system has reached the end of its useful life and needs to be replaced. The vendor of the OCTEL system has informed the County that they will no longer support our voice mail system after June of 2008. An unsupported system is a system where replacement parts are no longer manufactured and the vendor will no longer repair or address problems or issues. With this time line it will be necessary to have identified the replacement system by the end of 2007 to avoid non-support issues.

Location

All areas of the County will be impacted.

Analysis of Need

1. Voice mail is a critical function at Waukesha County, with several business units heavily reliant on it. Many additional features associated with voice mail, will be employed to streamline county operations in the future.
2. Features of voice mail systems will allow for more efficient and effect dealings with county residents that can be related to Constituent Relationship Management (Automatic Voice Recognition (AVR), Information Hot Lines, etc.).
3. Going unsupported puts our critical system at a level of risk that would be considered unacceptable.

Alternatives

Alternatives to this project include:

1. Continue to use our existing voice mail system for an additional year and stock piling replacement parts to address service issues. Find a third party service vendor to support the system for that period of time.
2. Combine the voice mail requirements into a countywide Voice over IP initiative. Voice mail is a product that is offered through this solution.

Ongoing Operating Costs

Maintaining the Voice Mail system is anticipated to be about $15,000/year.

Previous Action

None

Project #	200414	**Project Title**:	Countywide Cashiering
Department:	DOA	**Sponsor:**	Information Systems
Phase:	Implementation	**Manager:**	Sean Sander
Budget Action:	C - $ Update	**Date:**	09/21/2007

CAPITAL BUDGET SUMMARY

Year	2004	2005	2006	2008	
Project Phase	Analysis Design	Implementation	Implementation	Implementation	Total Project
Expenditure Budget	$300,000	$245,000	$225,000	$200,000	$970,000
Revenue Budget	$0	$0	$125,000	$200,000	$325,000
Net County Cost	$300,000	$245,000	$100,000	$0	$645,000

COST DOCUMENTATION		**REVENUE**	
Software	$425,000		
Hardware	$100,000	Records Management	
Interfaces	$25,000	Fund Balance Transfer	$125,000
Training	$10,000		
Licenses	$10,000	Collections	
Consulting/Implementation	$350,000	Fund Balance Transfer	$200,000
Contingency	$50,000		
Total Project Cost	$970,000	Total Revenue	$325,000
EXPENDITURE BUDGET	$970,000	**REVENUE BUDGET**	$325,000

Project Scope & Description

The Scope of this Capital Project is to provide the County with an Enterprise-wide (Countywide) Cashiering solution which would support all County departments that employ a cashiering function, and for future uses of receiving monies for County services and receipting for the received funds.

The ideal single solution would provide "back office" functionality which would automatically update diverse "stand alone" Accounts Receivable systems and interface with the County's central financial system. This solution would compliment the e-Payments and e-Receipting functions currently supported and expanding usage expected for the County.

The project also incorporates electronic receipting that allows for direct electronic recording of documents. Recent changes in federal and state law allow electronic recording of real estate documents. A cashiering system that allows the Register of Deeds office to accept electronic documents for recording opens a new area of potential efficiency in document processing. Currently in Wisconsin, two counties and two financial institutions for satisfaction of mortgage documents use e-recording. Last year the Register of Deeds office recorded 4,922 satisfactions of mortgages from these two institutions, out of a total of 60,103 satisfactions of mortgages. E-recording would eliminate the manual entry and verification of these documents into the Land Records system.

The County uses many cashiering systems. These will have to be evaluated as part of this initiative. These include:

- Register of Deeds
- Health and Human Services
- Clerk of Courts
- The Sheriff's Department
- Parks and Land Use
- Department of Administration
- Treasurer
- County Clerk
- UW-Extension
- Senior Services
- Child Support

Project #	200414	**Project Title**:	Countywide Cashiering
Department:	DOA	**Sponsor:**	Information Systems
Phase:	Implementation	**Manager:**	Sean Sander
Budget Action:	C - $ Update	**Date:**	09/21/2007

Most of these systems are centralized to the Treasurer, as the Depository for the County, and that information is input into the Business Accounting System. Many of these interfaces are manual and prone to error and other issues.

Several of these Cashiering systems are using aging technology and need to be upgraded or replaced.
This project provides the funding to upgrade the existing cashiering application in the Treasurer's office. Upgrade is necessary, for a short-term stopgap solution in the Treasurer's office, as the new tax system is unable to interact with their existing desupported DOS application. This interim solution could become a long-term solution for the Treasurer and other County departments in the event it is determined from rfp responses that single cashiering vendors are unable to meet the Register of Deeds specialized needs.

This project ultimately will enable a centralized receipting function for the County. Additional to the scope of this initiative, will be the development of a full incorporation of the Countywide data warehouse as the repository of this information. In order to efficiently and adequately plan for this and to eliminate rework a consultant study is necessary. The study will analyze, develop and recommend the ideal vision for establishing the primary source of name and address information and the infrastructure and architecture to best support, share and manage this information Countywide and provide a single citizen view. The desired solution will eliminate redundant data entry and identify the optimum organizational structure to best utilize this information to: increase customer service/satisfaction, deliver integrated multi-channel citizen centric services with quicker response time, improve accuracy of information, maximize staff productivity and efficiency, minimize costs of service delivery and measure/access performance and the quality of service delivery. This study will explore the long- term benefits of initiating various levels of CRM (customer relationship management) tools/activities and the applicable return on investment to the County. This study will also include evaluating the feasibility of electronic document imaging. Vendors have indicated that combining these studies will result in cost savings for the County.

Cost update in 2008 is based on most recent information gathering on costs of comparable systems.

Location
Most departments within the County will be impacted by this Capital project.

Analysis of Need
A new cashiering system with the ability to record documents electronically addresses the Register of Deeds' strategic plan critical issue #1 and the County's strategic plan by increasing the use of technology to improve customer service and efficiency. As the County migrates to web-based interaction with their constituents, the requirement to provide a centralized cashiering function that accommodates e-Commerce will become more important.

Several of the current cashiering systems cannot be upgraded because of the aging technology these were developed for.
Centralizing the cashiering function will reduce manual interfaces with the County's Business Accounting System, standardize the cash handling function and allow for better management of County funds.

Alternatives
Continue handling cash and Accounts Receivable as the County currently handles them, replacing systems as they fail, and continue to manually transfer cash internally for the County.
Ongoing Operating Costs
The maintenance contract for the solution chosen is expected to be at the 15% of purchase price level. Licensing fees for additional Business Objects users would add approximately $5,000, overall, for the County, to be allocated by user areas. Maintenance of these licenses would be approximately $750 annually. To the extent a centralized cashiering solution is viable, cost savings from multiple vendor software maintenance costs and interfacing multiple systems can be avoided.
Previous Action
Proposed as new project in 2004-2008 plan. Approved with cost update in the 2006-2010 plan.

Project #	IS-200820	**Project Title**:	IT Infrastructure Upgrade to Wiring Closets
Department:	DOA-Information Technology	**Sponsor:**	DOA
Phase:	Engineering	**Manager:**	Mike Biagioli
Budget Action:	New	**Date:**	

CAPITAL BUDGET SUMMARY

Year	2008	2009	2010	Project Total
Project Phase	Engineering	Implementation	Completion	
Expenditure Budget	$50,000	$650,000	$100,000	$800,000
Revenue Budget	$50,000	$650,000	$100,000	$800,000
Net County Cost	**$0**	**$0**	**$0**	**$0**

Cost Documentation		**Revenue**	
Contract Services	$200,000		
Network Equipment	$100,000	End User Technology	$400,000
UPC and Closet Ventilation	$150,000	Fund Balance	
Cabling	$300,000	Telecommunications	
Contingency	$50,000	Fund Balance	$400,000
Total Project Cost	**$800,000**	**Revenue Budget**	**$800,000**

Project Scope & Description

The purpose of this project is to fund the required upgrades for the County's wiring closets supporting our network infrastructure across the County. As data throughput requirements have increased the network capacity has not kept pace. It is anticipated that within the next two years the demand for more capacity will require a significant increase to our network, specifically as it relates to our wiring closets. These closets will have to be evaluated to determine what upgrades will be required to support the County into 2015. Known upgrades are: new Cat 6 cable, an increase in electrical power, power battery backup for several of the closets, additional cooling for some of the closets, and possible relocation if required.. Accomplishing these upgrades will also prepare the County for a transition to Voice Over Internet Protocol (VOIP) for our telephone system.

Location

All departments within the County.

Analysis of Need

1. An external communications and network consultant was contracted in 2004. The assessment prepared by that consultant identified the network infrastructure as inadequate to support VOIP and that significant modifications would have to be made to our infrastructure to accommodate this transition.

2. Packet sizes of data have increased in number and size over the past five years. This trend is projected to continue into the foreseeable future. Our network infrastructure, although currently adequate, is anticipated to be inadequate to support our future throughput requirements. This shortfall is anticipated to impact the County within two years.

3. Focusing in on the County's identified "bottlenecks" would be the most judicious use of County funds to resolve these issues.

Alternatives

Alternatives to this project include:

1. Postpone the upgrade until the throughput requirements dictate that an immediate upgrade is required.
2. Postpone the upgrade until Voice Over Internet Protocol is activated.

Ongoing Operating Costs

End User Technology will incur additional maintenance cost associated with the Power Backup units installed. There should be no additional costs associated with the network infrastructure upgrade.

Previous Action

None.